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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/820,789	03/30/2001	Nikolas Bergerhoff	449122004000	3534

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MORRISON & FOERSTER
2000PENNSYLVANIA AVE,NW
WASHINGTON, DC 20002-1888

EXAMINER

TSE, YOUNG TOI

ART UNIT	PAPER NUMBER
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2611

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
3 MONTHS	03/07/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

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Office Action Summary	Application No.	Applicant(s)	
	09/820,789	BERGERHOFF, NIKOLAS	
	Examiner	Art Unit	
	YOUNG T. TSE	2611	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 08 February 2007.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-4 and 6-8 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-4 and 6-8 is/are rejected.
- 7) ☒ Claim(s) 7 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 22 November 2005 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on February 8, 2007 has been entered.

Response to Arguments

2. Applicant's arguments filed February 8, 2007 have been fully considered but they are not persuasive.

The Applicant believes that the amendment of the independent claims 1 and 3 had overcome the 35 U.S.C. 102 rejection of claims 1-4 and 6-8 by Mabuchi and argues that Figs. 4A and 4B of Mabuchi, the detection circuit 12 receives any signal g and demodulates it. However, the circuit is not able to distinguish reshaped signals from non-reshaped signals. Hence, there will be no difference in the output of the detection circuit for a reshaped signal or a non-reshaped signal. That is, the form of signal h in Fig. 4B will be the same either way.

With respect to claims 1 and 3, Mabuchi discloses a radio control system shown in Fig. 1 and Fig. 3. The system comprises a transmitter shown in Fig. 1 having a

reshaping device (the encoder 1 or the phase inverter 2 alone or the encoder 1 and the phase inverter 2 in combination) connected to an antenna (S.ANT), which subjects a signal sent from the transmitter for wire-free signal transmission in such a manner that the signal transmission (waveform f output from the amplifier 5) occurs using variable electromagnetic waves (the waveforms a, b, c, d and e of Fig. 2) and at least one of reproducibility and transmissibility is exacerbated; and a receiver shown in Fig. 3 having a detector (12) which supplies an output signal (h) when reshaping is present (waveform g of Fig. 4A which is the input of the detector 12 and has the same waveform f of the reshaping of the transmitter shown in Fig. 2F), such that the detector (12) can distinguish a reshaped signal (waveform h shown in Fig. 4B) from a non-reshaped signal (waveform a shown in Fig. 2A generated by an oscillator 6 of the encoder 1) to determine that the signal is coming from the transmitter.

Drawings

3. The drawings were received on November 22, 2005. These drawings are not acceptable because they are not comply with 37 CFR 1.84 since the drawings are considered as "Annotated Marked-up Drawings" instead of formal drawings even the replacement sheets are marked with "Replacement Sheet" in each of the sheets. Further, the word "Replacement" in each of the replacement sheets should be deleted.
4. The drawings are objected to as failing to comply with 37 CFR 1.84(p)(5) because they do not include the following reference sign(s) mentioned in the

description: the reference sign "24" is not shown in Fig. 1 as mentioned at page 4, line 28 of the specification and the reference sign "60" is not shown in Fig. 4 as mentioned at page 6, line 21 of the specification. Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

5. The drawings are objected to because the reference sign "44" labeled for the resistor is mislabel. It should be labeled for both the resistor and the capacitor as an output filter (see Fig. 3). Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the

renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Specification

6. The disclosure is objected to because of the following informalities: at page 5, line 6, "transmitter 4" should be "signal generator 4". Appropriate correction is required.

Claim Objections

7. Claim 7 is objected to because of the following informalities:

In claim 7, line 2, "receiver" should be "detector" as shown in Fig. 3 and described in the specification, and the receiver is not further including a sensor.

In claim 7, line 3, the term "or an electrical current" should be deleted since the specification lacks support for it.

Appropriate correction is required.

Claim Rejections - 35 USC § 112

8. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

9. Claim 7 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Claim 7 lacks connection or cooperation with the precedent claim 3.

Claim Rejections - 35 USC § 102

10. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

11. Claims 1-4, 6 and 8 are rejected under 35 U.S.C. 102(b) as being anticipated by Mabuchi et al. U. S. Patent No. 4,007,455 (hereinafter "Mabuchi").

With respect to claims 1 and 3, Mabuchi discloses a radio control transmitter in Figure 1 for transmitting a rectangular wave to a radio control receiver in Figure 3 through a wireless communication channel. In Figure 1, the radio control transmitter comprises an encoder 1 having an oscillator for generating a rectangular wave (a) (see Fig. 2A), mono-stable multivibrators 7-1 through 7-3 and variable resistors 8-1 through 8-3 for selecting pulse widths in the responsive mono-stable multivibrators 7-1 through 7-3, diodes 9-1 through 9-3, and differentiating circuits 10-1 through 10-3 (see Figs. 2B-2C), the output of the encoder 1 provides a reshaping signal (d) (see Fig. 2D) to the wireless transmission channel in such a manner that at least one of reproducibility and transmissibility is exacerbated through the block elements 2-5 and the antenna of the

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radio control transmitter. The radio control receiver comprises at least a detector 12, which supplies an output signal (h) (see Fig. 4B) when reshaping is present. During a signal transmission between the transmitter and the receiver, the signal transmission occurs using variable electromagnetic waves, for example, the electromagnetic waves of figures 2A-2F in the transmitter and figures 4A-4F in the receiver are variable.

With respect to claims 2 and 4, the radio control transmitter includes the encoder 1 which activates and reshapes the rectangular wave in a predetermined manner in time and the radio control receiver includes a comparison device 12 which checks whether the received signal is pre-emphasized in the predetermined manner in time.

With respect to claim 6, the encoder 1 includes at least one diode 9-1, 9-2, or 9-3, which is included in a line between the oscillator 6 and the antenna.

With respect to claim 8, the encoder 1 includes a series circuit, comprising a diode 9-1, 9-2, or 9-3 and a differentiation element 10-1, 10-2 or 10-3, in a line between the oscillator 6 and the antenna.

Claim Rejections - 35 USC § 103

12. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

13. Claim 7 is rejected under 35 U.S.C. 103(a) as being unpatentable over Mabuchi et al. as applied to claim 3 in view of Quist et al. U. S. Patent No. 6,199,018 (hereinafter "Quist").

Although Mabuchi does not explicitly show or suggest that the receiver circuit comprises a sensor to convert a magnetic flux density or a magnetic field strength to an electrical voltage or an electrical current.

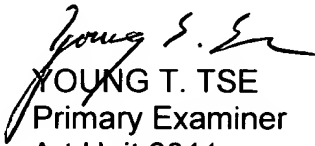
Quist discloses a related transmission/reception circuit in Figure 2B comprising a microprocessor 28 receives as an input the output signals from an electromagnetic flux sensor 36 that includes a flux sensing device and a conditioning amplifier. The flux sensor 36 should be positioned appropriately with respect to an associated machine 11 to detect the magnitude of the flux existing in the stator of the machine 11. The flux sensor 36 allows for a determination of the rotor speed and the load of the machine 11 (see column 8, line 63 to column 9, line 6). The processor 28 is coupled to a communication board 26, a modem 30 or an RF transceiver 32 for further processing of the processed signal.

Therefore, it would have been obvious to one of ordinary skill in the art to use a sensor in the front end receiver section of Mabuchi's receiver circuit to convert a magnetic flux density or a magnetic field strength to an electrical voltage or an electrical current as taught by Quist in order to determine counter signal various parameters of gear or shaft such as speed, acceleration and/or position of a motor.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to YOUNG T. TSE whose telephone number is (571) 272-30513051. The examiner can normally be reached on Monday-Thursday and alternative Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jay Patel can be reached on (571) 272-2988. The Central FAX Number for the organization where this application or proceeding is assigned is (571) 273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


YOUNG T. TSE
Primary Examiner
Art Unit 2611